

(d) REMARKS

The claims are 1 and 3-9 with claim 1 the sole independent claim. Claims 1 and 9 have been amended as to form only, which changes are unrelated to patentability. Reconsideration of the claims is expressly requested.

Claims 1 and 9 were rejected under Rule 112, second paragraph, and were deemed objectionable due to certain informalities. The Rule 112 rejection and the objections recited by the Examiner have been remedied in accordance with the Examiner's kind suggestions and withdrawal thereof is requested.

Claims 3 and 7 were rejected as obvious over Arai '092, combined with Kishiki '171 and ACS or as obvious over Tanikawa '432, combined with Kishiki '171 and ACS. Claims 1, 3, 7 and 8 were rejected as obvious over Arai '092 or Tanikawa '432 in view of Kishiki and ACS. Claims 4, 5, 6 and 9 were deemed obvious over Arai or Tanikawa in view of Kishiki and ACS and further in view of either Tanikawa '065, Tamura '470 or JP '767.

Claims 1, 3, 4, 5 and 7 were also rejected as an obviousness-type double patenting over allowed claims 1, 3-6, 9 and 10 of Application No. 10/717,452 in view of Tamura or Tanikawa '432 and '065. The grounds of rejection are respectfully traversed.

Prior to addressing the grounds of rejection, Applicants wish to briefly review certain key features of the present claimed invention. Key features of the present claimed invention include: "a magnetic toner has a saturation magnetization of being in the range of 5 to 60 Am<sup>2</sup>/kg in a measured magnetic field of 795.8 kA/m" and "the binder resin contains a polyester component polymerized by using a Ti chelate compound as a catalyst".

A magnetic toner with such magnetic properties permits the formation of an especially effective magnetic brush on a developing sleeve. A bristle of the magnetic brush is easily disentangled upon development to form a developed image. The bristle behaves not as an elongated bristle, but as a single toner particle at the developing nip spaced between the developing sleeve and the photoconductive drum. Therefore, toner consumption can be unexpectedly reduced (see specification page 10, lines 2 to 9).

In addition, because the chargeability of the present toner is high and the charge quantity distribution is sharp by virtue of the binder resin having a polyester component polymerized by a Ti chelate compound as a catalyst, a latent image on the photoconductive drum can be reproduced quite faithfully. Furthermore, the instant toner does not readily detach from an image area. Finally, the toner is not consumed in an amount larger than is necessary to compensate for the charge of the latent image. Therefore, the inventive toner exhibits reduced toner consumption (see specification page 9, lines 5 to 13).

U.S. Patent 6,677,092 (Arai '092) discloses a magnetic toner having magnetization limitations similar to that in instant claim 1. Furthermore, WO 03/073171 A1 (Kishiki) discloses a polyester toner binder resin obtained by using a titanium chelate compound as a catalyst. According to Kishiki, when a toner comprises the toner binder TB7, the toner is capable of maintaining good low temperature fixability and hot offset resistance.

However, Arai merely discloses that the object for adjusting the value of the toner magnetization in the specific range is "to improve the image density and reading

precision" and "to improve the dispersing property and durability of the magnetic powder with respect to the binder resin"(U.S. Patent 6,677,092, column 6, line 55 and column 8, line 8). Accordingly, Arai does not disclose or suggest the correlation between a specific range of the value of toner magnetization and its direct effect of reducing the toner consumption, which is a key unexpected effect of the present invention.

Furthermore, neither Arai nor Kishiki disclose or suggest that only by satisfying both of the specific range of the value of the magnetization recited in the instant claim 1 and by using a binder resin having a polyester component polymerized by using a Ti chelate compound as a catalyst, can the above beneficial reduced toner consumption effects can be achieved (see specification page 9, lines 19 to 23 and Examples 1-6 vs. Comparative Example 1 in Table 4). In Comparative Example 1, no titanium chelate was used, instead tetramethyltitanate was used.

There is no motivation to combine Kishiki with Arai, since Arai is directed to improving a magnetic toner by employing specific magnetic powder, while Kishiki relates to improved offset resistance properties of a binder resin.

Regarding the Examiner's rejection of claims 3 and 7 under 35 U.S.C. §103(a) on the grounds set forth in paragraph 11 of the Official Action, it is noted that U.S. Patent 4,857,432 (Tanikawa '432) and U.S. Patent 6,379,855 (Hayashi) disclose a magnetic toner having a specific saturation magnetization and a specific remnant magnetization. The toner described in Table 2 of Tanikawa '432 meets certain magnetization limitations recited in the instant claims. Kishiki discloses a polyester toner binder resin obtained using a titanium chelate compound as a catalyst. According to Kishiki, when a toner comprises

the toner binder TB7, the toner is capable of maintaining good low temperature fixability and hot offset resistance.

However, neither Tanikawa '432 nor Hayashi disclose the object for adjusting the value of the magnetization in the specific range, nor do they suggest the relevance between the specific range of the value of the magnetization and the beneficial effect of reducing toner consumption, which is an important unexpected property of the present invention. Furthermore, Tanikawa, Hayashi and Kishiki do not disclose or suggest that only by satisfying both of the specific range of the value of the magnetization recited in the instant claim 1 and use of a binder resin having a polyester component polymerized by using a Ti chelate compound as a catalyst, can the above reduced toner consumption property be achieved (see specification page 9, lines 19 to 23 and Examples 1-6 vs comparative Example 1 in Table 4).

Regarding the Examiner's rejection of claims 1, 3, 7 and 8 under 35 U.S.C. § 103(a) on the grounds set forth in paragraph 13 of the Official Action, the same arguments Applicants presented above are advanced to meet the rejection over Arai. Regarding the Examiner's rejection of claims 1, 3, 7 and 8 under 35 U.S.C. §103(a) on the grounds set forth in paragraph 14 of the Official Action, Applicants advance the same arguments presented previously regarding the rejection over Tanikawa.

The Examiner has stated that claims 1, 3, 4, 5 and 7 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1, 3-6, 9 and 10 of co-pending Application No. 10/717,452 (Application '452) in view of Tamura and Tanikawa '432, as evidenced by Hayashi.

The claims of allowed Application No. 0/717,452 recite the presence of a colorant, a release agent and an inorganic fine powder. Further, the allowed claims require a polar resin containing at least 3 % by weight of a polyester unit formed in the presence of 0.01 to 2% of a titanium catalyst. In addition, the claims require a granulation step and a toner particle diameter of 4 to 10  $\mu\text{m}$ .

Present claim 1 recites none of the underlined parameters of the claims of Application No. 10/717,452. In addition, present claim 1 recites a magnetic toner with magnetic particles containing, *inter alia*, a magnetic ion oxide. Present claim 1 also recites os and or magnetization ranges. None of these magnetic toner features or magnetization ranges is present in the '452 Application claims. Clearly, the claims of the respective applications define distinct inventions. Certainly, the PTO could have restricted the present claims from the above-discussed allowed claims had they been presented in a single application. Further, there is no extension of the monopoly once the issued claims of the '452 Application expire, since one can clearly practice the claims of the '452 Application without infringing the instant magnetic toner claims.

Accordingly, Applicants submit the Examiner has not raised a *prima facie* case of obviousness. The claims should be allowed and the case should be passed to issue.

Applicants' undersigned attorney may be reached in our New York office by telephone at (212) 218-2100. All correspondence should continue to be directed to our below listed address.

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